

that approximately one in ten had had to change their employment status in order to look after the patient, usually a reduction in the number of hours worked. Half of the caregivers who had reduced their work hours reported a subsequent loss in income (ranging from €575 per month in France to €170 in the UK). 113 caregivers (13%) indicated that they receive medication to treat a condition brought on or exacerbated by their caregiver role, most frequently anxiety, depression and/or insomnia. Caregivers also reported significant impact on their social lives with 51% recording reduction in time available for themselves, 48% indicating a decrease in social activities and a quarter mentioning reduced fitness. **CONCLUSIONS:** Caregiving is associated with reduced employment and a negative financial impact. It may result in less free time, social activity, poorer health due to reduced fitness and increased medication. The emotional burden of seeing a loved-one suffer is high; however, the financial and physical health implications of being a caregiver should not be underestimated.

MENTAL HEALTH – Health Care Use & Policy Studies

PMH70

DAILY AVERAGE CONSUMPTION AND AVERAGE DAILY COSTS OF DULOXETINE, VENLAFAXINE-XR, AND PREGABALIN AMONG US COMMERCIALY INSURED PATIENTS

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OBJECTIVES: Health plans calculate daily average consumption (DACON) to compare utilization and costs-per-day of therapy across medications with similar therapeutic indications. The purpose of this study is to examine DACON for duloxetine across its US-approved indications in major depressive disorder (MDD), generalized anxiety disorder (GAD), diabetic peripheral neuropathic pain (DPNP), and fibromyalgia (FM) and to compare these results with those for venlafaxine-XR and pregabalin. **METHODS:** A retrospective analysis of commercially insured patients from large US health plans receiving ≥ 1 prescription for duloxetine, venlafaxine-XR, or pregabalin during 2006 and 2007 was conducted. MDD and GAD patient subgroups were constructed for duloxetine and venlafaxine-XR and DPNP and FM for duloxetine and pregabalin. Subgroup assignments were based on ICD-9 diagnosis codes recorded during the 12 months prior to the first prescription for each index medication during the study interval. DACON was calculated by dividing total units dispensed by total days of supply. Units-per-day were converted to costs-per-day using June 2009 new wholesale prices.¹ **RESULTS:** A total of 79,119 duloxetine, 97,369 venlafaxine-XR, and 50,512 pregabalin patients were included in the 2007 analysis. DACON for duloxetine was 1.31 capsules per day, ranging between 1.27 for DPNP, 1.33 for GAD, 1.39 for FM, and 1.52 for MDD. Average daily cost for duloxetine was \$5.20 varying from \$5.07 (DPNP) to \$6.06 (MDD). DAACONS for venlafaxine-XR and pregabalin were 1.61 and 2.49, respectively. Duloxetine and pregabalin had similar average daily costs among patients with DPNP or FM, while the numbers were significantly lower for duloxetine than venlafaxine-XR among patients with MDD or GAD. Results for 2006 were similar. **CONCLUSIONS:** Duloxetine has stable DAACON across disease states and over time. Average daily costs were similar for duloxetine and pregabalin, but better for duloxetine versus venlafaxine-XR. ¹First DataBank's National Drug Data File™ accessed via Analysource Online, June, 2009.

PMH71

SOCIODEMOGRAPHIC FACTORS AND TOXIC HABITS RELATED TO STUDENT DRUG USE: THE CASE OF THE TECHNOLOGICAL EDUCATIONAL INSTITUTE OF ATHENS

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OBJECTIVES: The academic area of the Tertiary Education constitutes an important field of adjustment and transaction of the young in the post adolescence age with particular tensions, pressures and stress. The objectives of this study are to focus on the extent of drug use in this student community and the investigation of the relationship between socioeconomic factors, toxic habits and drug use. **METHODS:** The sampling was selected out of a population of 27,930 students according to stratified sampling weighed by gender, department and semester. The sample size was 829 students, that is sufficient for the estimation of the proportion of users with a significance level of 0.05. The questionnaire comprised 83 items concerning sociodemographic and economic characteristics, adjustment to the academic environment and use of substances. **RESULTS:** A total of 161 persons, (19.4%) have used drugs at least once. There are significant differences ($p < 0.01$) between users and non users concerning: gender, relations between parents, satisfaction on study, alcohol use, smoking, number of cigarettes/day, friends that are drug users, age of smoke beginners, spending the night. Discriminant analysis has indicated that the discriminant factors between dependents/on a crucial phase, before dependence and non users are: friends that are drug users (0.707), alcohol use (0.627), age of smoke beginners (0.608), relationship between parents (0.392). **CONCLUSIONS:** It is evident the resulting relationship between illegal and legal psychotropic substances. Consequently, prevention policy should not ignore tobacco and alcohol use. Additionally it is evident the predominant role of the social environment in the use of substances.

PMH72

BENZODIAZEPINE USE AMONG FREQUENT ATTENDERS TO EMERGENCY DEPARTMENTS: A NATIONWIDE STUDY IN TAIWAN

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OBJECTIVES: Benzodiazepines (BZDs) as anxiolytics, sedatives and hypnotics are frequently prescribed in daily medical practice worldwide and their abuse also becomes a target of public health measures. Because frequent attenders to emergency departments (EDs) sometimes display different psychological features, the utilization pattern of BZDs among this group of patients deserves investigations. **METHODS:** The data sources came from the historical claims datasets of 1,000,000-person cohort (LHID2005) in 2007, offered by the National Health Insurance Research Database in Taiwan. BZDs were defined as those drug items belonging to groups of N03AE, N05BA, N05CD and N05CF in the ATC (Anatomical Therapeutic Chemical) classification system. For each beneficiary, the annual numbers of visits to EDs of hospitals and ambulatory visits to practicing clinics and outpatient departments of hospitals (excluding visits to dentistry and traditional Chinese medicine) with BZDs prescriptions in 2007 were calculated. **RESULTS:** Among the valid 962,768 beneficiaries of the 1,000,000-person cohort, 157,865 (16.4%) patients (96,004 females and 61,861 males; mean age 52.0 ± 17.8 [SD] years) had received BZDs during ambulatory visits and 156,259 (16.2%) patients (76,644 females and 79,615 males; mean age 38.5 ± 23.5 [SD] years) had visited EDs in 2007. Among the 806,509 beneficiaries who did not visit EDs in 2007, only 14.5% ($n = 116,554$) had ever received BZDs at ambulatory visits during the year. In contrast, 26.4% ($n = 41,311$) of the ED attenders had received BZDs: the percentage rose from 22.6% in one-time ED attenders to 78.8% in those having more than 12 ED visits in a year. **CONCLUSIONS:** The use of BZDs was strongly associated with ED visits in Taiwan. Further stratified analyses are required to elucidate this phenomenon.

PMH73

POTENTIAL ABUSE OF COMBINATION ANALGESICS: A DATABASE ANALYSIS

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OBJECTIVES: Medicine abuse is defined as the recurrent use of a medicine in a non-medical manner for non-medicinal purposes. The potential for abuse of combination (polycomponent) analgesics is high. The primary aim was to detect the potential abuse of combination analgesics using a medicine claims database. **METHODS:** An analysis of the South African combination analgesic market was made. Thereafter, a retrospective, exposure-cohort drug utilisation study was conducted on a medicine claims database of a medical aid administrator. The medicine file contained 1,357,717 records for 2007. **RESULTS:** From the analysis of the combination analgesics available, it was found that there were 21 Schedule 5 (prescription-only) tablet formulations (trade names) containing the following identical active ingredients: 320 mg paracetamol, 8 mg codeine phosphate, 32 mg caffeine and 50 mg meprobamate. From the database study, a total of 145,372 analgesics were prescribed (36.82% were available without a prescription). Combination analgesics accounted for 30.21% of all analgesics prescribed (92,181 products at a cost of R2,784,484). Analgesics were often prescribed on an acute basis in excessive quantities, for example 200 tablets. Combination analgesic tablets and capsules were also often dispensed to children in large quantities. For example, 10 prescriptions for 100 tablets of an over-the-counter combination analgesic and eight prescriptions for 100 capsules of a prescription-only combination analgesic, were dispensed to children under seven years, while a syrup (a more suitable dosage form) was available. There was furthermore concern about the quantities of analgesics prescribed to specific families and it was clear that if the medical aid benefit of one family member was exhausted, the analgesic was claimed under another family member's name. A number of prescribers were identified who were over-prescribing specific analgesics. **CONCLUSIONS:** A medical aid database can be used to detect analgesic abuse and guidelines to control abuse and cost were proposed.

PMH74

REIMBURSEMENT OF INNOVATIVE DRUGS IN SLOVAKIA—PHARMACOECONOMICS OF AGOMELATIN IN DEPRESSION

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OBJECTIVES: Although health spending is well below the OECD average when considered as a share of GDP, Slovakia's pharmaceutical expenditures accounts 32% of total health care budget. The accessibility and availability of innovative drugs is good. Mandatory HTA (pharmacoeconomy) is incorporated in all relevant legislation, MoH set the official threshold by I1 = €18,000/QALY and I2 = €26,500/QALY. **METHODS:** We have analysed the legislation and official reimbursement decisions and commentaries, published by the MoH in 2009. We analysed the applicants documentation including pharmacoeconomic analysis, as a mandatory part of the application. **RESULTS:** The main drug reimbursement body—Categorisation committee of the MoH—and pharmacoeconomic advisory committee evaluated the applicants dossier for the drug agomelatine (Valdoxan®, Servier Slovakia) for the treatment of depression. The pharmacoeconomic part of the application fulfilled all legislative aspects. The CUA analysis was taken from Swedish pharmacoeconomic model and extrapolated in Slovak environment. CMA in Slovak conditions shows lower drug costs for agomelatine.